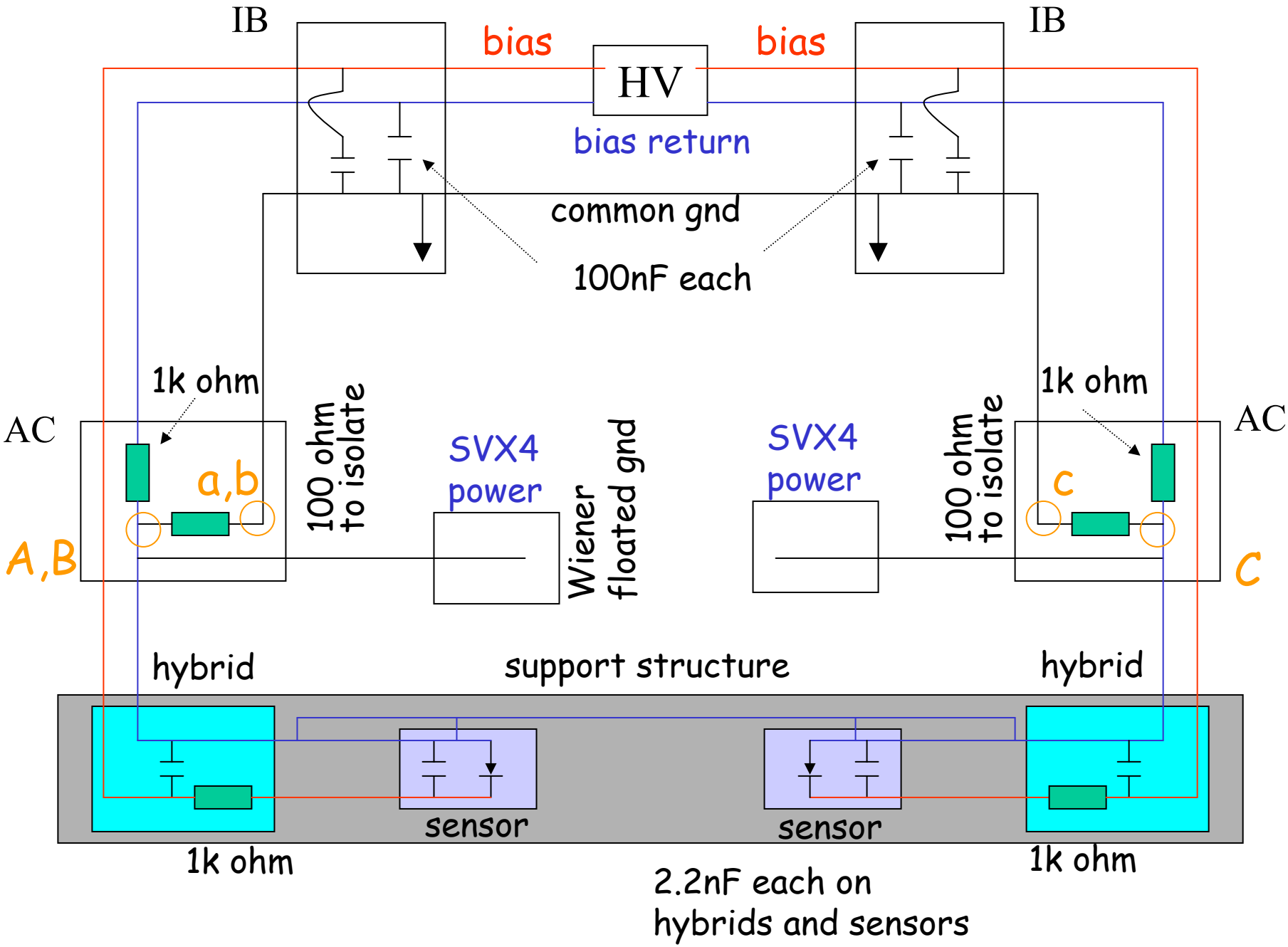
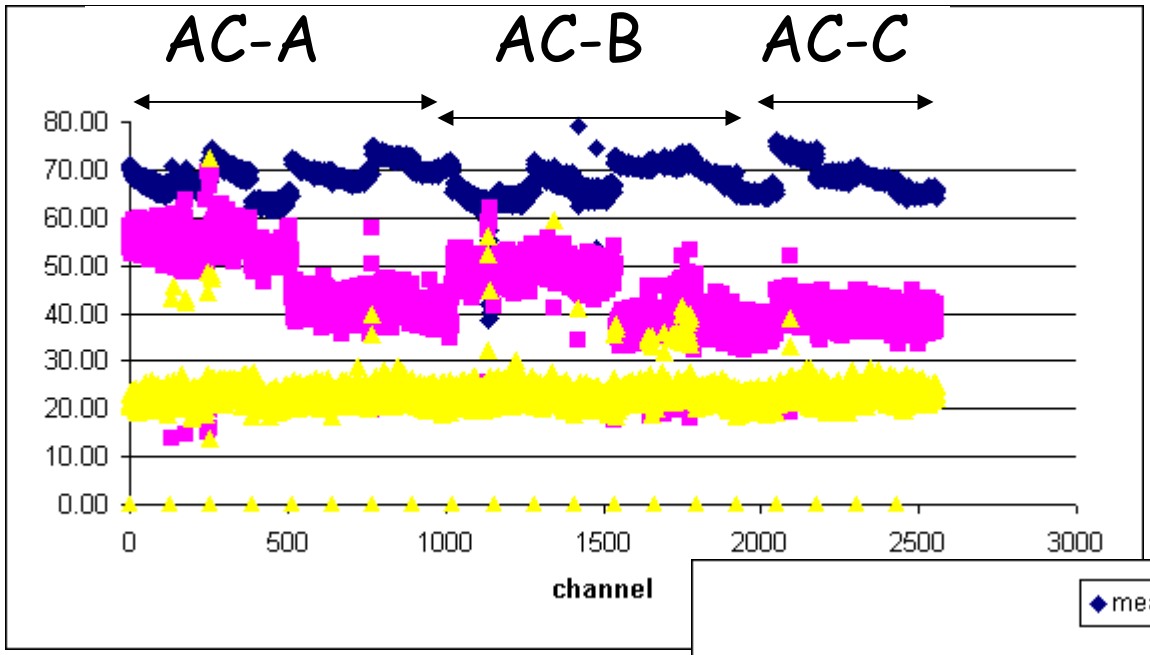
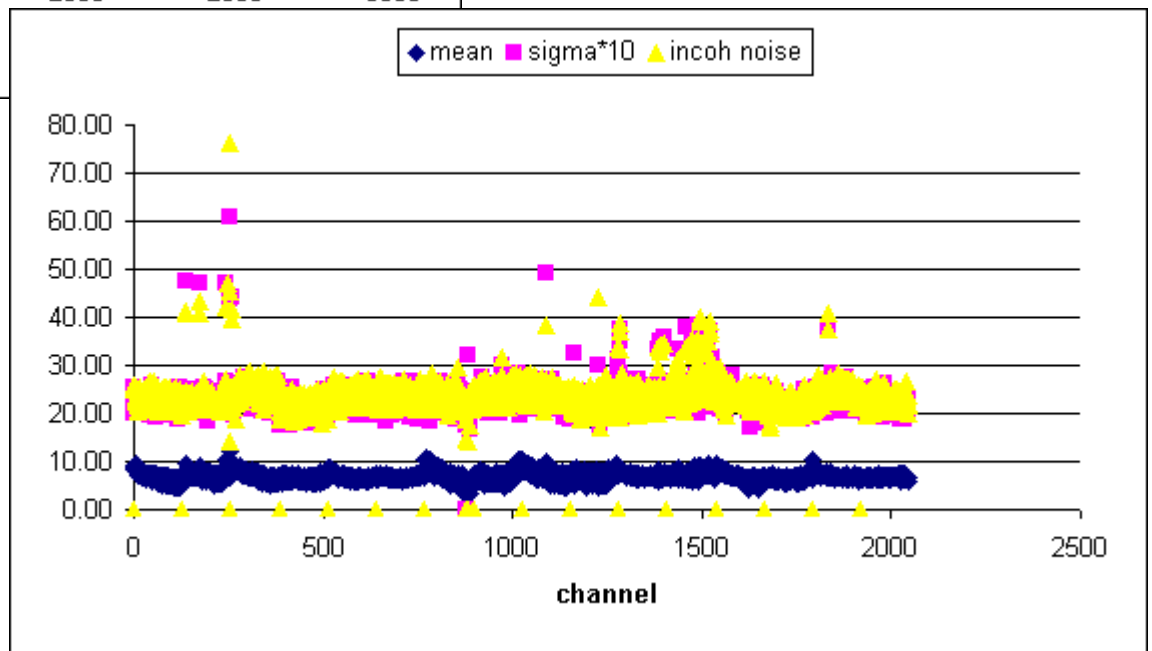

IB
bias
HV
bias
IB
bias return
common gnd
100nF each
1k ohm
AC
100 ohm to isolate
SVX4 power
Wiener floated gnd
SVX4 power
100 ohm to isolate
1k ohm
AC
a,b
A,B
C
C
hybrid
support structure
hybrid
sensor
sensor
1k ohm
1k ohm
2.2nF each on hybrids and sensors

Noise Level



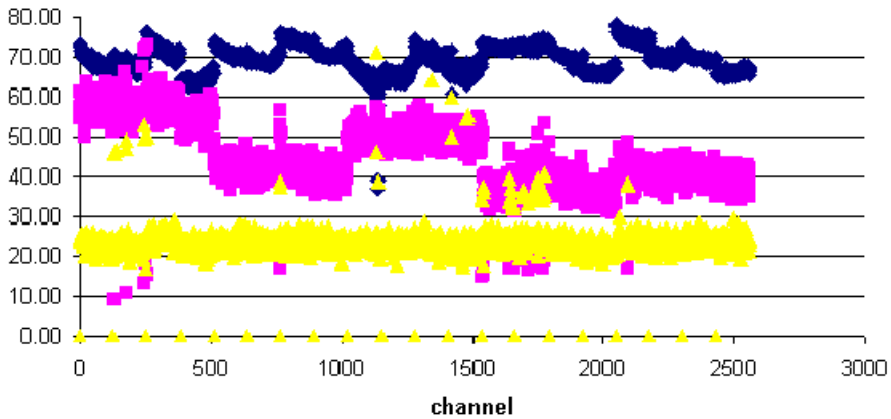
- huge pick-up observed

RTPS is turned on →

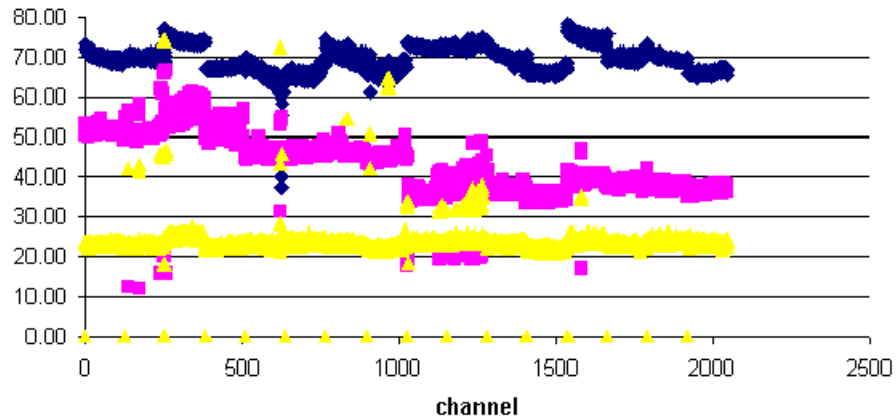


Module or AC dependence ?

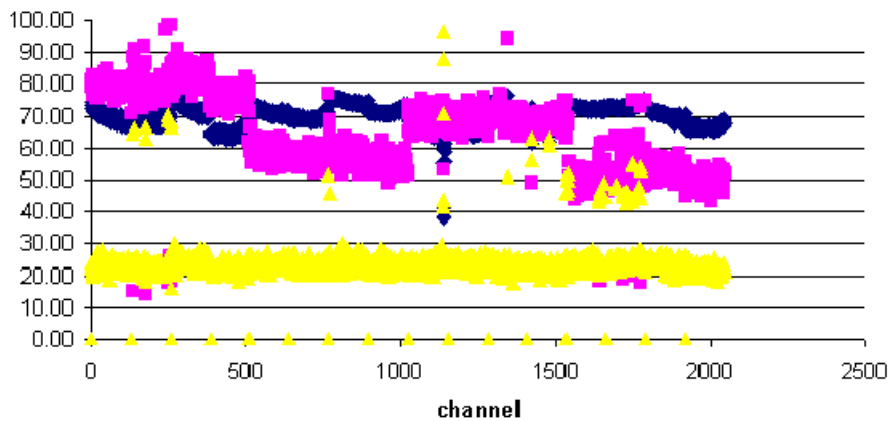
all 10 modules



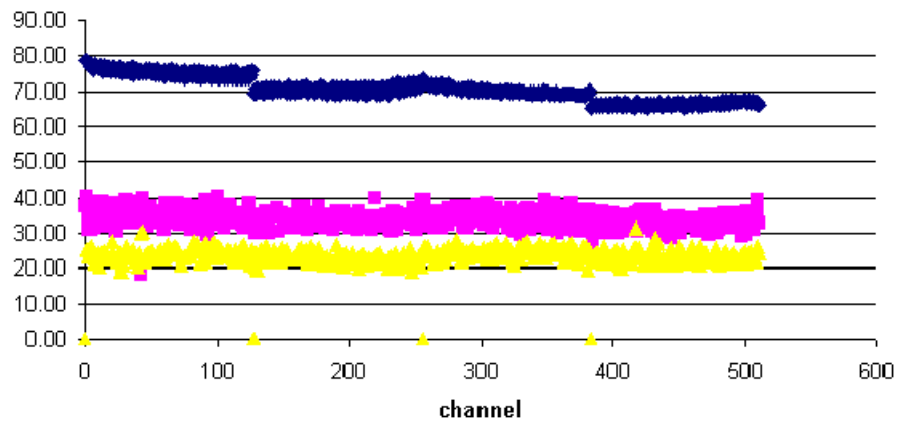
1,2,5,6,7,8,9,10



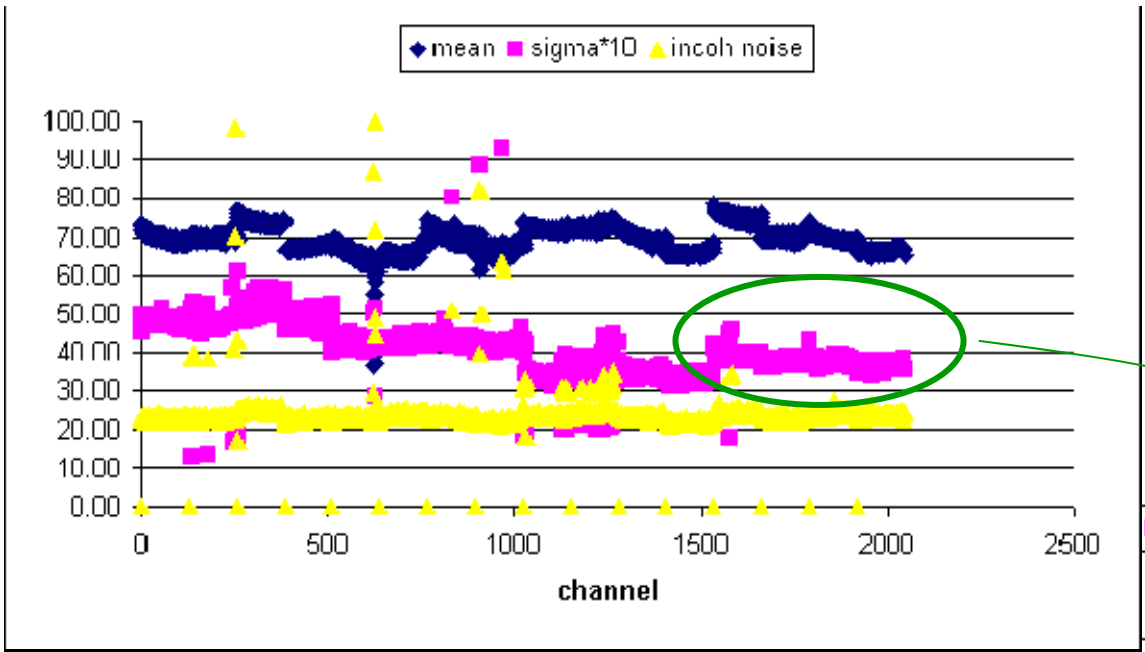
1,2,3,4,5,6,7,8



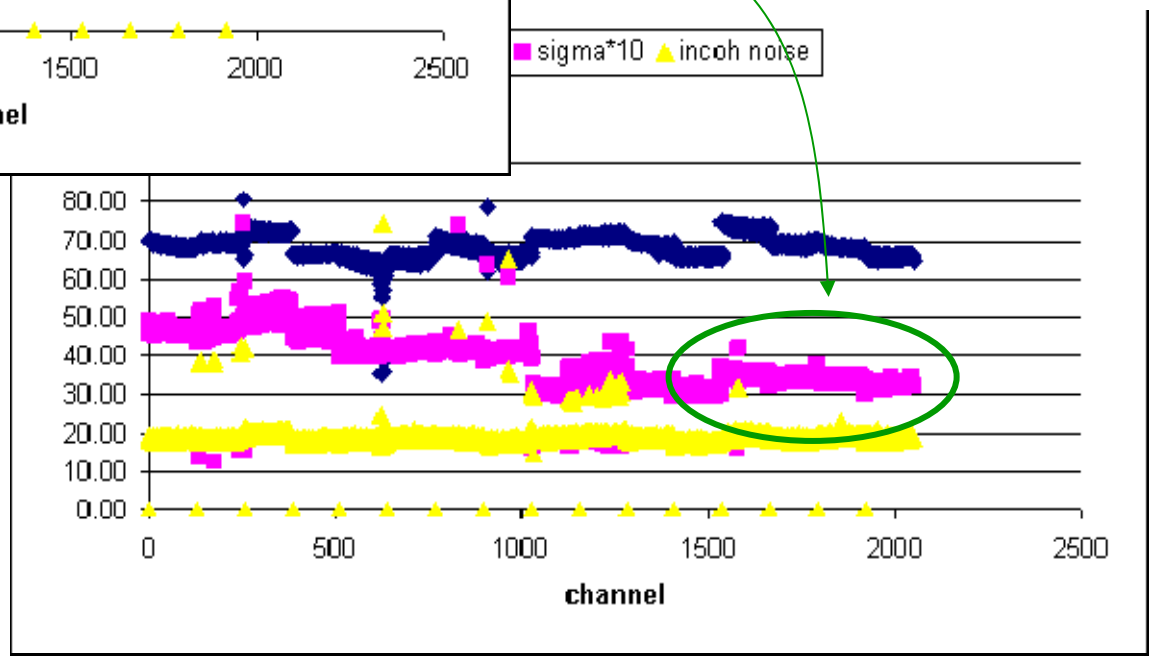
9,10



Inductance between JC and hybrid?



- removed coil shape of twisted pair cables

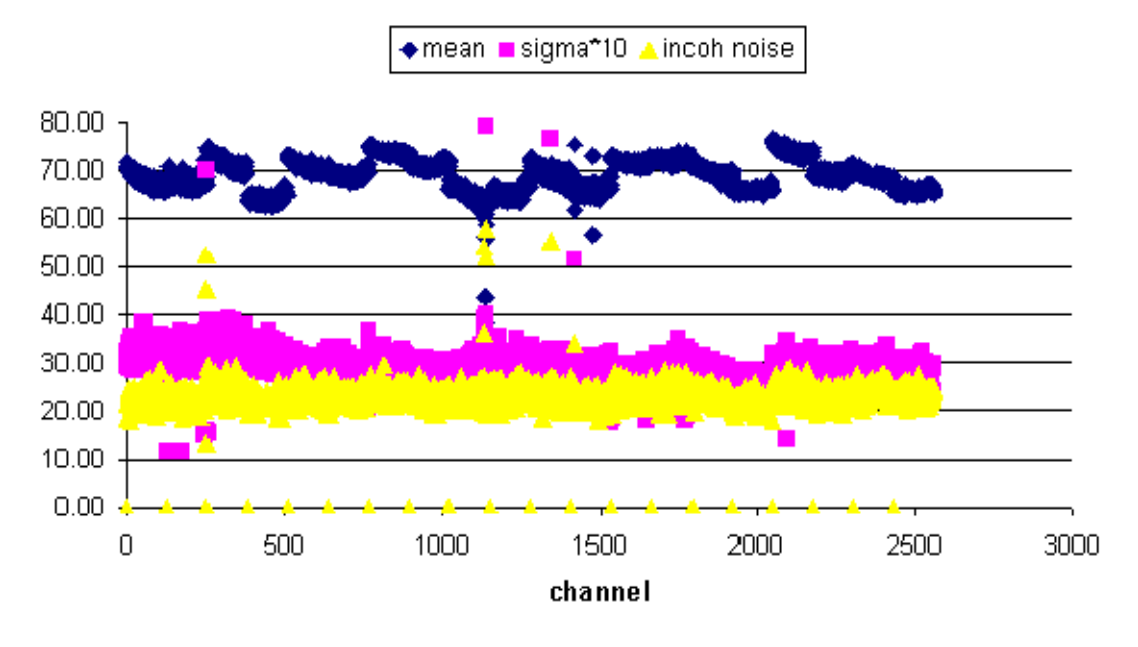


Strange behavior

- Depending on the jumper configurations for bias in interface board, the bias voltage cannot be set properly – drift gradually and reaches to zero eventually
- Potential difference observed among the common(!) ground of AC

After AC replacement

- AC-A: remains the same
- AC-B: new AC with the clock amplitude regulations
- AC-C: use the one in AC-B in the old configuration



Summary

- We don't understand the source of the pick-up noise
- It has gone after replacing the AC's – doesn't make sense logically
  - bad connections somewhere?
  - potential difference also seems to disappear
- The current 10+2 channels can be used for A-layer testing